

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

First Named		Confirmation No: 6776
Inventor :	Alexandre Cotarmanac'h	
Appln. No.:	10/506,910	Group Art Unit: 2425
Filed :	July 11, 2005	
For :	Dependent Data Stream Transmission Procedure	Examiner: Chokshi, Pinkal R.
Docket No.:	F40.12-0028	

PRE-APPEAL BRIEF REQUEST FOR REVIEW

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Sir:

Applicants respectfully request a Pre-Appeal Brief Review of the rejection of claims 1-15 and 17-23. In addition to the arguments presented below, Applicant requests review of the arguments presented in the Amendment dated July 12, 2010 and February 15, 2010.

ARGUMENT

In addition to the prior arguments, Applicant responds to the Examiner's statements in the Advisory Action:

Continuation of 11, does NOT place the application in condition for allowance because: Applicant alleges that the Access Unit disclosed in the claim is not the same as Data Object of the reference Pierre. Examiner respectfully disagrees. Based on the definition given for Access Unit by MPEG4 system as shown on Applicant's argument section, it further mentions the example of Access Unit (AU), where the examples of an AU are an audio/video frame. As disclosed by Pierre (col.6, lines 38-40), data objects of the stream include audio/video clips. Therefore, it rebuts the Applicant's argument.

- The example which is given in the MPEG-4 System shows that an Access Unit is a frame, not a clip. The definition of a "video clip" (Pierre, Col 6, lines 38-40) is any **short video** less than the length of a traditional television program (Wikipedia, http://en.wikipedia.org/wiki/Video_clip).
- The definition of a frame, in the context of MPEG 4 system is "a segment of an elementary stream that represents a small logical unit of data."
- Thus, a frame cannot be considered as the same thing as a video clip, which is a short video.

In response to applicant's argument that there is no teaching, suggestion, or motivation to combine the references, the examiner recognizes that obviousness may be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988), *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992), and *KSR International Co. v. Teleflex, Inc.*, 550 U.S. 398, 82 USPQ2d 1385 (2007). In this case, Applicant asserts that the combination of references does not teach the limitation "each of said stream or streams being made of access units". Examiner respectfully disagrees. First, Access Unit is a broad term and is not defined in the claim. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. Pierre discloses (col.5, line 42-col.6, line 10; col.6, lines 38-40) that the data stream transmitted to the receiver includes data objects (access units), where data objects can be application code and data, A/V clips, control signals, triggers, etc, as represented in Fig. 2. Based on the broadest reasonable interpretation, data objects of Pierre reads on the access unit since access unit is not defined in the claim. Therefore, the combination of references meets all the limitations of the claim 1 as mentioned above and it renders the claim of obviousness.

- Applicant's specification provides an explicit definition of an "Access Unit":

Definitions

Stream Unit (AU: Access Unit)

A data unit that is accessible individually in an elementary stream. A stream unit (or access unit) is the smallest entity to which a time data element can be attributed.

- Where Applicant provides a definition of a claim term in the specification, the Examiner's interpretation of the term must be consistent with this definition and, as such, the definition does not allow the Examiner to interpret the term "Access Unit" so broadly as to encompass the "data object" of Pierre.
- "Access Unit" cannot be considered as a broad term. It is defined in documents which would necessarily be considered by the one skilled in the Art. The MPEG4 System standard is one of these documents and **the claims are clearly related to MPEG Standard**. Many other documents and references to access units exist, such as:
 - o <http://www2.tek.com/cmswpt/faqdetails.lotr?ct=FAQ&cs=faq&ci=6366&lc=EN>
 - o <http://www.birds-eye.net/definition/acronym/?id=1156895284>
- Thus, the Examiner cannot make a "*broadest reasonable interpretation*".
- Furthermore, even if the Examiner want to make a "*broadest interpretation*", the one which is made in the Office Action is not reasonable. Indeed, "Pierre" is not even related to audio/video synchronisation. "Pierre" relates to the organisation of data objects in carrousel.

A. Pierre's Data Object Cannot be Considered an "Access Unit" Per Claim 1

Pierre discloses a method for recording pushed interactive data streams of a program. A pushed data stream is broadcast to a receiving station. The data stream includes one or more data objects. The data objects which comprise a data stream of a program may include application

code and data, audio and video clips, control signals, triggers, raw data and other types of information. (Col. 6, lines 7-10). As described with reference to Fig. 3, the data objects in carousel 35 contain references (indicated by the dashed arrows) to data objects in other carousels 36, 37. In this example, carousel 36, itself, contains a reference to a data object in carousel 37. The data objects are part of a program (Col. 4, lines 50 to 62) and are transmitted cyclically (col. 4, lines 63 to 66) as part of the Carousel (The Carousel is described in col. 1, line 31 to 47).

Therefore, the data objects of 'Pierre' cannot be considered "access units" as defined by Applicant's specification, nor can the "access units" of the present claims be regarded as a kind of 'superset' of the data objects of 'Pierre'. In fact, in the present claims, an "access unit" does not contain a sound or a picture in its entirety as described in 'Pierre'.

The interpretation that is made by the Examiner does not therefore seem appropriate on this first point. So, in fact, 'Pierre' does not meet all the limitations of the claim except "wherein said pointer is a dependency pointer..." as alleged by the Examiner in the last paragraph of page 6 of the Office Action.

B. Putzolu et al., U.S. Patent. No. 6,205,140

Putzolu discloses "an example of a directed graph illustrating dependencies". Furthermore, it is described that in Fig. 1, nodes represent a particular media **stream** (col.2, line 58) (audio or video) and not stream units. Moreover, in column 2, lines 63-67, Putzolu discloses that "*an arrow directed from a first node (which is a stream) to a second node (which is also a stream) indicates that the first node (stream) depends directly upon the second node (stream), so that the second node (stream) is required for the first node (stream) to be of use*".

So, in Putzolu, an arrow just shows a dependency relation between two streams.

Second, Putzolu discloses "stream descriptors" which are enclosed in RAP packets. These RAP packets are occasionally transmitted in a separate control stream, "*for dynamically defining a variable set of media streams belonging to a media presentation, along with their dependencies*" (Col. 2, lines 16-19). In column3, lines 33 to 35, Putzolu states, "*There is a one-to-one mapping or association between each Stream Descriptor and each media stream comprising the media presentation. Each media stream associated with a Stream Descriptor is implicitly **numbered** according to the numerical order of its associated Stream Descriptor.*"

The Advisory Action states,

Furthermore, Applicant alleges that the office action has not provided a suggestion or motivation to combine the references Pierre and Putzolu. Examiner respectfully disagrees. Pierre discloses (col.4, lines 42-45) that the stream is made of data objects and Putzolu discloses (col.2, lines 19-20) that the stream is a set of data packets. Furthermore, Putzolu discloses (col.2, lines 24-33) that the component of the stream comprises audio/video sequences. The motivation to combine Pierre and Putzolu references came from the secondary reference Putzolu, where the motivation would be to describe dependencies among the data packets so the arrangement of a media presentation to be varied in response to information that becomes available as the presentation progresses. The same motivation is also provided on the page 10 of the previous office action. Therefore, it rebuts the Applicant's argument.

- The Applicant does not understand this argument of the Examiner. On one hand, the Examiner states that “Access unit” is a broad term, that “Data Object” can be considered as an “Access Unit”, and that a Data Object is a “video clip”. On the other hand (in Putzolu), the stream is a set of “Data Packets” and it comprises “audio/video sequences”.
- The Examiner says that the motivation to combine would come from Putzolu, but Putzolu is motivated to synchronize “audio/video sequence” streams, *not “data packets”*.
- This means that in Putzolu, the “Access Unit” of the claim would be considered as the “Audio/Video Sequence” (using the Examiner’s interpretation).
- So, the Applicant does not understand why the person skilled in the art would suddenly be interested by the way the “data packets” are working, because the data packets don’t contain audio video sequence or video clip (indeed, the Examiner should at least consider that a data packet is not a video clip or a video sequence).
 - o More particularly, the Applicant does not understand why the Examiner explains that suddenly the skilled person in the Art would change the way the data packets are working.
 - o Why would the skilled person in the Art change the way the data packets (which do not contain video sequence) work when Putzolu motivates that person to synchronize the streams, not data packets (by following the Examiner’s interpretation)?

Furthermore, Applicant alleges that Furukawa does not disclose a pointer that points to another stream unit. Examiner respectfully disagrees. Furukawa discloses (0063) that the MPEG transport stream transmitted to an apparatus includes field for urgent pointer as represented in Fig. 7. Also, Referring to the standard defining the header package ‘TCP’ (RFC793) from the same source (<http://www.faqs.org/rfcs/rfc793.html>), the definition of the “urgent pointer” is Urgent Pointer: This field communicates the current value of the urgent pointer as a positive offset from the sequence number in this segment. The urgent pointer points to the sequence number of the octet following the urgent data. This field is only be interpreted in segments with the URG control bit set. Based on the above definition, one skilled in the art can conclude that the urgent pointer points to another data following the urgent data in the stream. Therefore, it rebuts the Applicant's argument.

- Same argument as before: the “Access Unit” cannot be considered, on one hand as a video clip and, in on another hand, as a packet. Indeed, the TCP protocol (RFC793) explains how data packets are transmitted in an IP protocol based network. Thus, if the

Examiner considers that a data packet is an “Access Unit”, then an “Access unit” cannot be a video clip.

- The Examiner should maintain the same interpretation by applying, throughout the proposed combination of references, the same meaning to “Access Unit”.

It is important to note that neither **Putzolu** nor **Furukawa** discloses a pointer to another stream unit (or access unit). So if the Examiner is relying on **Furukawa** to disclose a pointer that is distinct from a sequence number, that pointer would not point to another stream unit (or access unit), as recited in Applicant's claims. Rather, it would constitute an ‘urgent pointer’ as defined above.

Thus, the proposed combination of Furukawa’s “urgent pointer” would not satisfy the elements of Applicant’s claims and is therefore not relevant either separately or in combination with the other references.

C. **Okura**

The sequence number of Okura does not point to at least one other stream unit of the stream or of another stream. Okura does not disclose a dependency pointer that is distinct from any sequence number the stream unit may have. In the present application, the pointer in the current stream unit points to a specific previous required unit. In other words, the pointers are not required to be sequential, as in Okura. Okura does not disclose or suggest that the sequence numbers of Okura allow a current stream unit to be processed if other stream units of the stream have not yet been received.

In view of the foregoing, Applicants respectfully request reconsideration and allowance of claims 1-15 and 17-23.

The Director is authorized to charge any fee deficiency required by this paper or credit any overpayment to Deposit Account No. 23-1123.

Respectfully submitted,
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